US007316298B2

(12) **United States Patent**
Yeager

(10) **Patent No.: US 7,316,298 B2**
(45) **Date of Patent: Jan. 8, 2008**

(54) **WHEELCHAIR SAFETY BRAKE ASSEMBLY**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 241 days.

(21) Appl. No.: **11/167,931**

(22) Filed: **Jun. 28, 2005**

(65) **Prior Publication Data**

US 2006/0000678 A1 Jan. 5, 2006

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/425,034, filed on Apr. 29, 2003, now abandoned.

(60) Provisional application No. 60/375,815, filed on Apr. 29, 2002.

(51) **Int. Cl.**
B62B 5/04 (2006.01)

(52) **U.S. Cl.** ..... **188/2 F**; 188/9; 188/19; 188/20; 188/17; 188/177

(58) **Field of Classification Search** ..... 188/9, 188/17, 18 R, 19, 20, 28, 29, 30, 31, 2 F, 188/68, 174, 177
See application file for complete search history.

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(57) **ABSTRACT**

This invention relates to gravity reactive braking systems. According to the invention there is provided a brake system to control speed in a forward direction for descending inclined surfaces and a brake system for controlling rollback when ascending an inclined surface. The speed pacer braking assembly includes a downhill activator for selectively engaging a disc brake system when a predetermined inclined is reach. The anti-rollback assembly comprises a pair of graded brake cam structures operatively disposed adjacent wheels wherein the natural pull of gravity and the configuration of the cams operate to allow passage of wheels in both directions when on flat surfaces and in only a single direction when on an incline. When on an incline, gravity operates to dispose cams relative to the wheels such that rotation of wheels in one direction is hindered by a thickening of cam body caused by rotation of cam about its axis. Both systems include adjustment means for setting the incline angle at which brake assemblies will operate to hinder wheel rotation in the undesired direction.

12 Claims, 7 Drawing Sheets